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**REMARKS**

Claims 1-14 are pending.

**REPLY TO OBJECTION**

Claim 1 was objected to. Claim 1 has been amended as suggested in the Office Action.

For the reasons as set forth below, the Examiner is requested to reconsider and withdraw the objection to the claim.

**REPLY TO REJECTIONS****FIRST REJECTION**

Claims 1 and 8-14 were rejected under 35 U.S.C. § 102(e) as being anticipated by Hepburn et al., (U.S. Patent No. 5,<sup>974</sup>594,788 "hereinafter Hepburn '788"). This rejection is traversed.

In section 4 of the Office Action, the Patent Office details reasons why the claim was asserted to be "anticipated" by the reference to Hepburn '788.

In claim 1, there has been an amendment made which reads as follows... means for. . . placed before the original term "releasing or reducing the absorbed NO<sub>x</sub> when an oxygen concentration of the exhaust gas is reduced."

The means for performing the functions stated is set forth in part, for example, in the paragraph bridging pages 5 and 6 of the specification and see, for example, Figure 3(a) through Figure 3(b) as noted in the specification on page 7, lines 17-23 of the specification.

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The purpose of performing this function is to resume the NO<sub>x</sub> conversion efficiency to the desired level. See, for example, the description on page 32, lines 23-30.

In the reference to Hepburn '788, when the NO<sub>x</sub> efficiency is reduced, a heating step is performed to achieve the trapped 32 efficiency. See, for example, column 2, line 63 to column 3, line 7 of the reference.

*heating*

Thus, the means for increasing the efficiency of the NO<sub>x</sub> in the present device in the context claimed is completely different than what is disclosed in Hepburn '788.

In evaluating the claim terms "means", the Patent Office must give consideration of the disclosure regarding the means. This was set forth in the case of *In re Donaldson* (cited and explained in the reply of February 26, 2001, on page 6, second full paragraph). The Patent Office is again requested to reconsider the doctrine set forth in that paper when reconsidering the rejection.

Additionally, the difference between the context claimed in claim 1 and the reference is not obvious because there would be no suggestion to one skilled in the art to modify the reference without benefits of the applicant's disclosure to arrive at the context claimed.

With respect to claims 8-14, these claims are considered patentable for at least the same reasons as base claim 1.

For the reasons set forth above, the Examiner is requested to reconsider and withdraw the rejection of the claims under 35 U.S.C. § 102.

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SECOND REJECTION

Claims 2 and 5 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Hepburn et al., as applied to claim 1 above and in view of Sanbayashi et al., (U.S. Patent No. 5,349,816). This rejection is traversed.

Initially, base claim 1 is considered patentable both under 35 U.S.C. § 102 and 35 U.S.C. § 103 as explained in the reply to the first rejection. The addition of Sanbayashi et al. does not cure the deficiency of the rejection based on Hepburn.

For the reasons set forth above, the Examiner is requested to reconsider and withdraw the rejection under 35 U.S.C. § 103.

THIRD REJECTION

Claims 3 and 4 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Hepburn et al., as applied to claim 1 above in view of design choice.

Initially, as explained in the reply to the first rejection, the reference to Hepburn et al. does not suggest the structured claim. The reliance on design choice is improper because the functions are different.

The particular limitations referred to in the rejection do add to the totality of the claimed device and are more than design choice. See the importance of the structure as set forth, for example, on page 6, line 27 to page 7, line 2, and page 17, line 12 to page 18, line 9 of the specification.

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Also, the citation of *In re Kuhle* (cited in the Office Action) has been considered. As the facts in that case do not parallel the facts in this case, the citation of that case does not add anything to the rejection under 35 U.S.C. § 103.

Additionally, the Examiner asserts that one skilled in the art would have recognized the claim differences. See page 6, last paragraph. There is no factual basis for this speculation. It is incumbent on the Patent Office to supply facts to support a rejection under 35 U.S.C. § 103. See, *In re Warner*, 154 USPQ 173, 178 (CCPA 1967) wherein the court stated as follows:

A rejection based on section 103 clearly must rest on a factual basis, and these facts must be interpreted without hindsight reconstruction of the invention from the prior art. In making this evaluation, all facts must be considered. The Patent Office has the initial duty of supplying the factual basis for its rejection. It may not, because it may doubt that the invention is patentable, resort to speculation, unfounded assumptions or hindsight reconstruction to supply deficiencies in its factual basis.

For the reasons set forth above, the Examiner is requested to reconsider and withdraw the rejection of the claims under 35 U.S.C. § 103.

**FOURTH REJECTION**

Claims 6 and 7 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Hepburn et al. in view of Sanbayashi et al. as applied to claim 5 above and further in view of design choice. This rejection is traversed.

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With respect to the rejection of claim 5, this was addressed in the reply to the second rejection and is incorporated herein.

With respect to the addition of "design choice," this was addressed in the reply to the third rejection super which is incorporated herein.

For the reasons set forth above, the Examiner is requested to reconsider and withdraw the rejections of the claims under 35 U.S.C. § 103.

**ADDITIONAL PRIOR ART**

Additional prior art was cited but since this art has not been applied in a rejection, no comments are considered to be necessary.

**CONCLUSION**

If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone Mr. Elliot Goldberg at (703) 205-8000 in the Washington, D.C. area.

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If neccessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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**UNOFFICIAL**

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**VERSION WITH MARKINGS TO SHOW CHANGES MADE****IN THE CLAIMS**

The claims have been amended as follows:

1. (Twice Amended) An exhaust gas purifying apparatus of an internal combination engine, comprising:

exhaust gas purifying means, provided in an exhaust passage of the internal combustion engine, for absorbing NO<sub>x</sub> in exhaust gas when an air-fuel ratio of the exhaust gas is lean, and means for releasing or reducing the absorbed NO<sub>x</sub> when an oxygen concentration of the exhaust gas is reduced;

a light-off catalyst provided upstream of the exhaust gas purifying means in the exhaust passage, said light off catalyst having a lower O<sub>2</sub> storage capability than said exhaust gas purifying means;

the light-off catalyst and the exhaust gas purifying means are in an exhaust passage in series so that all the exhaust gas from the engine passes through both [catalysts] the light-off catalyst and the exhaust gas purifying means regardless of the engine operation modes; and

control means for controlling the air/fuel ratio of the exhaust gas so that an atmosphere having a reduced oxygen concentration is produced around said exhaust gas purifying means when an NO<sub>x</sub> conversion efficiency of the exhaust gas purifying means is decreased.